



***CRITICAL INFRASTRUCTURE PROTECTION:
DEVELOPING THE
FEDERAL R&D AGENDA***

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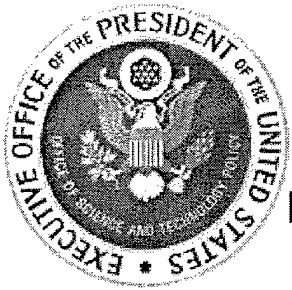
June 16, 1998



*Critical Infrastructure Protection R&D
Interagency Working Group*

A STRONG CALL FOR R&D

- The President's Commission called out R&D for particular emphasis
 - Recommended \$4.75 billion investment (FY98-FY04)
 - Increased focus in six areas:
 - Information assurance
 - Intrusion detection and monitoring
 - Vulnerability assessment and systems analysis
 - Risk management decision support
 - Protection and mitigation
 - Incident response and recovery
- The Commission stressed the importance of a strong government - private sector - academia partnership



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THE PRESIDENT'S RESPONSE

THE POLICY DECISION:

“It has long been the policy of the United States to assure the continuity and viability of critical infrastructures. President Clinton intends that the United States will take all necessary measures to swiftly eliminate any significant vulnerability to both physical and cyber attacks on our critical infrastructures, including especially our cyber systems.”

White Paper on PDD-63, May 22, 1998



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THE PRESIDENT'S RESPONSE

OUR R&D TASKING:

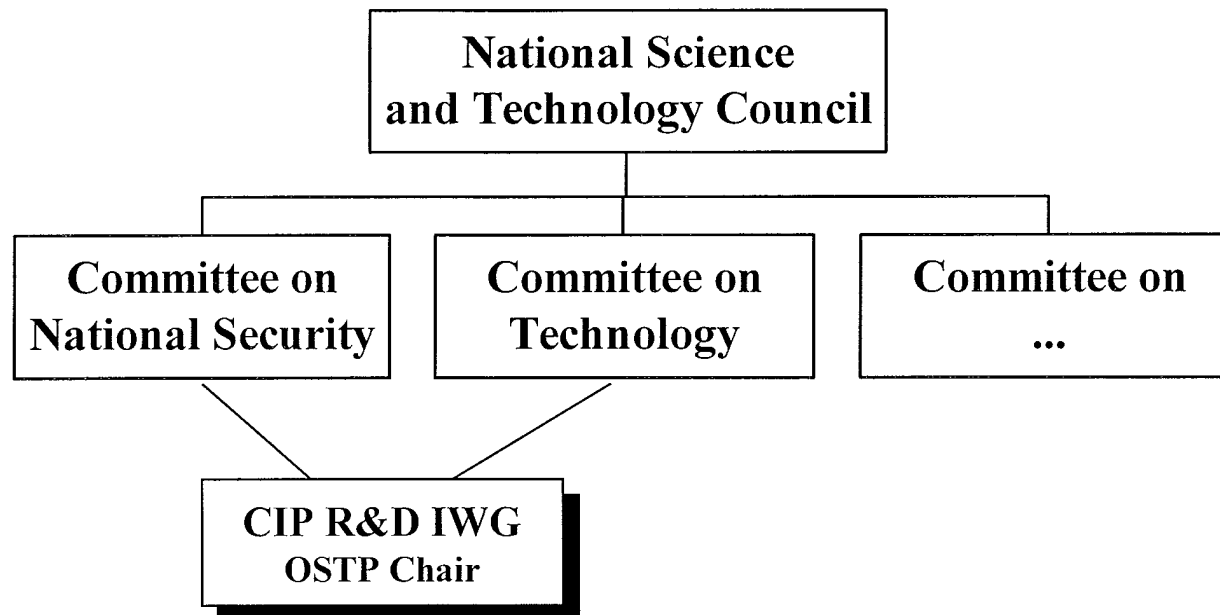
“Research and Development: Federally-sponsored research and development in support of infrastructure protection shall be coordinated, be subject to multi-year planning, take into account private sector research, and be adequately funded to minimize our vulnerabilities on a rapid but achievable timetable.”

White Paper on PDD-63, May 22, 1998



THE PRESIDENT'S RESPONSE

- Interagency coordination is key
- PDD-63 direction: “OSTP shall be responsible for coordinating research and development agendas and programs for the government through the National Science and Technology Council.”





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UP AND RUNNING

- **Interagency Working Group established in March**
- **Goals:**
 - **Develop and coordinate the federal government's critical infrastructure protection R&D agenda before end of year**
 - **Provide early version of the agenda to the Critical Infrastructure Coordination Group by late July**
 - **Reach out to industry, academia, and international partners**
- **PDD-63 deadline - deliver plan to the President by mid-November**



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CURRENT ACTIVITIES

- **Activities are well underway to achieve these goals**
 - **Identifying ongoing agency programs and budgets**
 - **Summarizing infrastructure vulnerabilities, drawing upon analyses in other studies (e.g., PCCIP report, Argonne National Laboratory, Department of Transportation)**
 - **Will develop near/long term budget recommendations and plan**
- **PCCIP Transition Office roadmapping study**
 - **Involved government, private sector, academia, and national labs**
 - **Focused on perceived technology gaps between infrastructure protection needs and available technologies**
 - **Recommended R&D programs to address the gaps**



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20 PLAYERS

**Arms Control and Disarmament Agency
Central Intelligence Agency
Department of Commerce
Department of Defense
Department of Energy
Department of Health and Human Services
Department of the Interior
Department of State
Department of Transportation
Department of the Treasury
Environmental Protection Agency
Federal Bureau of Investigation
Federal Emergency Management Agency
National Aeronautics and Space Agency
National Institute of Occupational Safety and Health
National Security Agency
National Security Council
National Science Foundation
Office of Management and Budget
Office of Science and Technology Policy**



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SHARING THE LOAD

SUBGROUPS

- Banking and Finance
- Information and Comm
- Transportation
- Energy
- Vital Human Services
- Budget
- Outreach
- Interdependencies

AGENCIES

Treasury (lead), DOJ, DOS, DOC, FED
DOC (lead), DOD, DOJ, NSF
DOT (lead), NASA, DOE
DOE (lead), DOI
HHS (lead), EPA, FEMA, NIH, PHS,
DOI, DOE
OMB (lead), DOD
DOC (lead), NSF, DOS, ACDA, DOD
DOT, DOE
OSTP (lead), DOD, DOC, Treasury,
DOT, DOE, HHS, OMB



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OUTREACH - PARTNERSHIP

White Paper on PDD-63: "...the elimination of our potential vulnerability requires a closely coordinated effort of both the public and the private sector. To succeed, this partnership must be genuine, mutual and cooperative."

- **OSTP and other agencies recognized early on the importance of partnerships with industry and academia and are committed to fostering them**
- **IWG has established an outreach subgroup chaired by Commerce**
- **Initial contacts with industry:**
 - **Close contact with NSTAC and its member companies**
 - **Participation in symposia: Armed Forces Communications and Electronics Association, National Defense Industrial Association**



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SUMMARY

- **IWG established to develop and coordinate federal government's critical infrastructure protection R&D agenda**
- **IWG activities well underway**
- **Partnership with the private sector, academia, and international partners is key to success**